

IN THE CLAIMS:

Please amend the claims as follows:

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Cancel Claims 1 and 12, 13, 16, 23, 25-27, 54, 58 and 59.

2 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene comprises Rose Bengal.

3 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene comprises 4,5,6,7-Tetrabromoerythrosin.

4 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of deoxyribonucleic acid (DNA), ribonucleic acid (RNA), amino acids, proteins, antibodies, ligands, haptens, carbohydrate receptors or complexing agents, lipid receptors or complexing agents, protein receptors or complexing agents, chelators, encapsulating vehicles short- or long-chain aliphatic or aromatic hydrocarbons, aldehydes, ketones, alcohols, esters, amides, amines, nitriles, and azides.

5 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene also is an imaging contrast agent.

6 (Twice Amended). The pharmaceutical composition of Claim 5 wherein said halogenated xanthene acts as an imaging contrast agent for computed axial tomography.

7 (Twice Amended). The pharmaceutical composition of Claim 5 wherein said halogenated xanthene acts as an imaging contrast agent for X-ray imaging.

8 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene includes at least one halogen selected from the group consisting of iodine and bromine.

9 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene is selected from the group consisting of Phloxine B, Erythrosin B and Eosin Y.

10 (Twice Amended). A radiosensitizer agent for treatment of cancer and tumors using ionizing radiation, said radiosensitizer agent comprising a halogenated xanthene wherein said halogenated xanthene is activated using x-rays having an energy greater than 30 keV.

14 (Twice Amended). The pharmaceutical composition of Claim 60 wherein at least one biological targeting moiety is attached to said halogenated xanthene to enhance targeting of said halogenated xanthene to biologically sensitive structures of said cancer or tumors.

15 (Twice Amended). The pharmaceutical composition of Claim 60 wherein at least one chemical targeting moiety is attached to said halogenated xanthene to enhance targeting of said halogenated xanthene to biologically sensitive structures of said cancer or tumors.

18 (Twice Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene is encapsulated in a delivery vehicle.

19 (Amended). The pharmaceutical composition of Claim 18 wherein said halogenated xanthene is Rose Bengal.

20 (Twice Amended). The pharmaceutical composition of Claim 18 wherein said delivery vehicle is selected from the group consisting of micelles, nanoparticles and liposomes.

51 (Twice Amended). A radiosensitizer agent for treatment of cancer and tumors using radiosensitization or ionizing radiation, said radiosensitizer agent comprising a halogenated xanthene wherein said ionizing radiation is approximately greater than or equal to 1 keV and less than or equal to approximately 1000 MeV.

52 (Amended). The pharmaceutical composition of Claim 60 wherein said ionizing radiation is approximately greater than or equal to 1 keV and less than or equal to approximately 1000 MeV.

55 (Amended). The pharmaceutical composition of Claim 60 wherein said halogenated xanthene includes as a functional derivative at least one targeting moiety selected from the group consisting of hydrophilic and hydrophobic moieties.

56 (Amended). The pharmaceutical composition of Claim 60 wherein said ionizing radiation comprises x-rays.

57 (Amended). The pharmaceutical composition of Claim 56 wherein said x-rays have an energy between 30 kiloelectron volts and 1000 megaelectron volts.

Please add the following the new claim:

60 (New). A pharmaceutical composition for treatment of cancer and tumors using applied ionizing radiation, said composition comprising a halogenated xanthene for application to the cancer or tumor as a radiosensitizer agent.

REMARKS

In the Final Rejection, the Examiner continued the following rejections:

- (1) Claims 1-3, 5-8, and 12-13, plus new Claims 58-59 under 35 USC §102 as being anticipated by Serafini et al. (¶8);
- (2) Claims 1-3, 5-9, and 12-13, plus new Claims 58-59 under 35 USC §102 as being anticipated by Neckers (¶10); and
- (3) Claims 4, 14, 18-20, and 25-27 under 35 USC §103 as being unpatentable over Serafini et al. or Neckers in view of Khaw (¶15).

The Examiner also made the following new rejections:

- (4) Claims 15-16, 23, and 54-55 under 35 USC §103 as being unpatentable over Serafini et al. or Neckers in view of Khaw (¶15); and
- (5) Claims 10, 51, 52, and 56-57 under 35 USC §103 as being unpatentable over Serafini et al. or Neckers in view of Norman (1991) (¶16).

Each of these rejections is respectfully traversed, as explained below.